

Above page 1, line 13, insert a heading:

C1 -- BACKGROUND AND SUMMARY OF THE INVENTION --

Above page 5, lines 7, insert a heading:

C2 -- BRIEF DESCRIPTION OF THE DRAWING FIGURES --

Above page 5, line 14, insert a heading:

C3 -- DETAILED DESCRIPTION --

IN THE CLAIMS:

The applicants have amended and added claims as follows:

C4 6. (Twice Amended) A method of manufacturing a semiconductor device which comprises a first semiconductor region of a first conductivity type with a first connection conductor forming a collector region of a bipolar transistor, a second semiconductor region of a second conductivity type opposed to the first conductivity type with second connection conductor, forming a base region of the transistor, and a third semiconductor region of the first conductivity type with a third connection conductor forming an emitter region of the transistor; said method comprising:

providing a substrate of the first conductivity type, and forming thereon an epitaxial layer of the first conductivity type to form the first semiconductor region;

forming the second semiconductor region on the first semiconductor region, the second semiconductor region having a partial region with a smaller flux of dopant atoms than other part of the second semiconductor region;

forming the third semiconductor region which lies recessed in the other part of the second semiconductor region; and

providing first, second and third connection conductors to the first, second and third regions with a connection conductor respectively, wherein the second conductor is adjacent

to the partial region of the second semiconductor region.

C5 10. (Twice Amended) A method as claimed in claim 6, characterized in that a fourth semiconductor region of the first conductivity type is formed between the partial region of the second semiconductor region and the second connection conductor simultaneously with the third semiconductor region.

11. (New) A semiconductor device with a semiconductor body comprising:

a first semiconductor region of a first conductivity type which lies in the semiconductor body and is provided with a first connection conductor, forming a collector region of a bipolar transistor;

C6 a second semiconductor region of a second conductivity type opposed to the first conductivity type which is present above the first semiconductor region and adjoining a surface of the semiconductor body, and which is provided with second connection conductor, forming a base region of the transistor; and

a third semiconductor region of the first conductivity type which lies recessed in the second semiconductor region and is provided with a third connection conductor, forming an emitter region of the transistor;

characterized in that a partial region of the second semiconductor region, which lies outside the third semiconductor region and adjacent the second connection conductor, has a smaller flux of dopant atoms than rest of the second semiconductor region.

12. (New) A semiconductor device as claimed in claim 11, characterized in that the partial region of the second semiconductor region has a lower doping concentration than other part of the second semiconductor region.

13. (New) A semiconductor device as claimed in 12, characterized in that the partial region of the second semiconductor region has a doping concentration substantially as half as that of the rest of the second semiconductor region.

14. (New) A semiconductor device as claimed in claim 11, characterized in that the partial region of the second semiconductor region has a smaller thickness than the other part of the second semiconductor region.

15. (New) A semiconductor device as claimed in claim 14, characterized in that the partial region of the second semiconductor region has a thickness substantially as half as that of the other part of the second semiconductor region.

C⁶ 16. (New) A semiconductor device as claimed in claim 12, characterized in that the partial region of the second semiconductor region has a smaller thickness than the other part of the second semiconductor region.

17. (New) A semiconductor device as claimed in claim 11, characterized in that the partial region of the second semiconductor region is present below the second connection conductor.

18. (New) A semiconductor device as claimed in claim 11, characterized in that the second connection conductor is exclusively connected to the second semiconductor region for the purpose of preventing a saturation of the transistor.

19. (New) A semiconductor device as claimed in claim 11, further comprising a fourth semiconductor region of the first conductivity type which is present between the partial region of the second semiconductor region and the second connection conductor.

20. (New) A semiconductor device as claimed in claim 19, characterized in that the fourth semiconductor region has the same thickness and doping concentration as the third semiconductor region.

REMARKS

This is responsive to the Office Action dated September 4, 2002 in which the Examiner rejects all the pending claims 6 ■ 10 as being indefinite under 35 U.S.C. §112 for improper claim language as well being obvious over Baliga (U.S. Patent No. 4,969,027) in view of Shen (U.S. Patent